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Membrane extraction of organic compounds 2. * transport of glycolic acid induced by α-aminophosphonates: Kinetic study

Antipin I., Stoikov I., Repeikov S., Konovalov A.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

New lipophilic α-aminophosphonates containing cyclic or acyclic alkyl substituents at the carbon atom in the a position were synthesized by the Kabachnik-Fields reaction. Studies of the obtained compounds as carriers for transport of glycolic acid through polymer-supported liquid membranes demonstrated that the flux of glycolic acid through the membrane depends on the lipophilicity and the presence of substituents at the α-C atom of aminophosphonate. The structures of a number of α-aminophosphonate - glycolic acid complexes were calculated by the semiempirical PM3 method.

Keywords

α-aminophosphonates, carriers, Glycolic acid, transport, liquid membranes